

HH3P-5/6/8/10KA1-HU Three-phase Hybrid Inverter



**4 MPPTs with double battery
current for super performance**



4 MPPTs

4 integrated MPPTs, suitable for houses with multi-pitched rooftops, supports high current solar panels



Double current

Maximum battery charge and discharge current: 50A (the common industrial level is 25A)



Safe

IP66 industry highest protection level

Supports unbalanced and half-wave loads on both the grid and back-up port



EPS

Back-up switch time <10ms



Overload capacity

Backup overload capacity increased to 1.6 times 60 seconds, support ref and AC inductive loads

HH3P Serials (Haier Three-phase High Voltage)

Haier

Model	HH3P-5KA1-HU	HH3P-6KA1-HU	HH3P-8KA1-HU	HH3P-10KA1-HU
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Input DC (PV side)				
Recommended max. PV power	8 kW	9.6 kW	12.8 kW	16 kW
Max. input voltage	1000 V			
Rated voltage	600 V			
Start-up voltage	160 V			
MPPT voltage range	200 - 850 V			
Max. input current	16A / 16 A / 16 A		16A / 16 A / 16 A / 16 A	
Max. short circuit current	24A / 24 A / 24 A		24A / 24 A / 24 A / 24 A	
MPPT number	3	3	4	4
Max. number of input strings per MPPT	1	1	1	1
Battery				
Battery type	Li-ion			
Battery voltage range	120 - 600 V			
Max. charge / discharge power	5 kW	6 kW	8 kW	10 kW
Max. charge / discharge current	25 A	25 A	50 A	50 A
Communication	CAN / RS 485			
Output AC (Grid side)				
Rated output power	5 kW	6 kW	8 kW	10 kW
Max. apparent output power	5 kVA	6 kVA	8 kVA	10 kVA
Rated grid voltage	3L / N / PE, 380 / 400 V			
Rated grid frequency	50 / 60 Hz			
Rated grid output current	7.6 A / 7.2 A	9.1 A / 8.7 A	12.2 A / 11.5 A	15.2 A / 14.4 A
Max. output current	7.6 A / 7.2 A	9.1 A / 8.7 A	12.2 A / 11.5 A	15.2 A / 14.4 A
Power factor	> 0.99 (0.8 leading - 0.8 lagging)			
THDi	< 3%			
Input AC (Grid side)				
Max. input power	7.5 kW	9 kW	12 kW	15 kW
Rated input current	11.4 A	13.8 A	18.2 A	22.8 A
Rated input voltage	3L / N / PE, 380 / 400 V			
Rated input frequency	50 / 60 Hz			
Output AC (Back-up)				
Rated output power	5 kW	6 kW	8 kW	10 kW
Max. apparent output power	8 kVA, 60 sec	9.6 kVA, 60 sec	12.8 kVA, 60 sec	16 kVA, 60 sec
Back-up switch time	< 10 ms			
Rated output voltage	3L / N / PE, 380 / 400V			
Rated frequency	50 / 60 Hz			
Rated output current	7.6 A / 7.2 A	9.1 A / 8.7 A	12.2 A / 11.5 A	15.2 A / 14.4 A
THDv (@linear load)	< 2%			
Efficiency				
Max. efficiency	97.90%	97.90%	98.00%	98.00%
EU efficiency	96.80%	97.10%	97.40%	97.50%
Protection				
Anti-islanding protection	Yes, Active Frequency Drift			
Integrated AFCI (DC arc-fault circuit protection)	Yes			
Insulation Resistor detection	Yes			
Residual current monitoring unit	Yes			
Output over current protection	Yes			
Output short protection	Yes			
Output over voltage protection	Yes			
Integrated DC switch	Yes			
DC reverse-polarity protection	Yes			
PV over voltage protection	Yes			
Battery reverse protection	Yes			
General Data				
Dimensions (W * H * D)	600 * 500 * 210 mm		600 * 500 * 230 mm	
Weight	27.58 kg		30.18 kg	
Topology	Transformerless			
Overvoltage Category	III(Main) II(PV)			
Self-consumption (night)	< 25 W			
Operating ambient temperature range	-25 ~ + 60°C			
Protection rating	IP66			
Cooling concept	Natural convection			
Max. operation altitude	4000 m			
Grid connection standard	AS/NZS 4777.2:2020			
Safety / EMC standard	IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-3			
Features				
PV connection	MC4 connector			
Battery connection	Quick connection plug			
AC connection	Quick connection plug			
Display screen	LED + Bluetooth + APP			
Communication	CAN, RS485, Ethernet, Wi-Fi, LAN			
Country of manufacture	China			

¹ Only inverters of the same brand and power range are supported for parallel, and the battery capacity under each inverter should be the same.

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